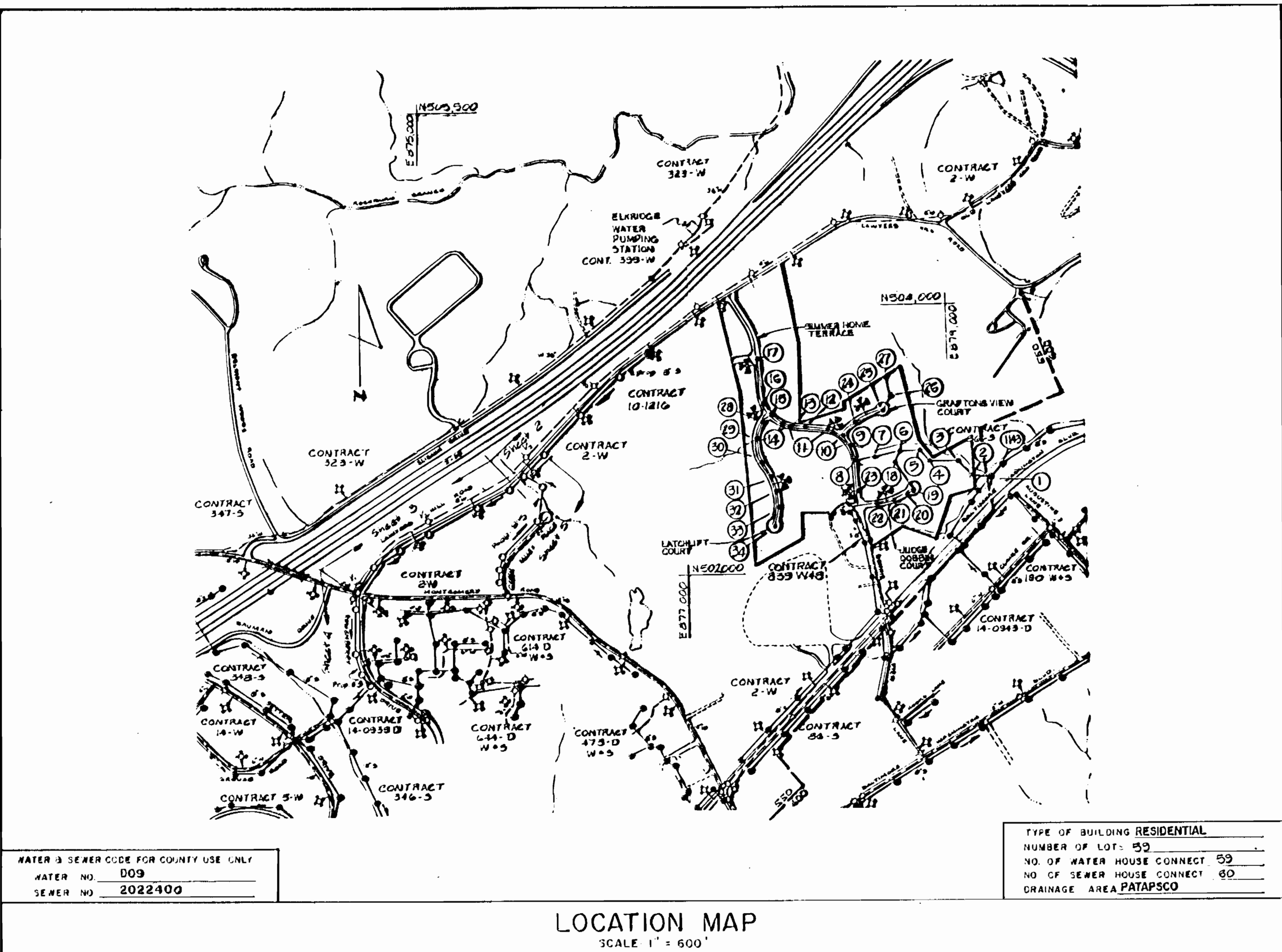


QUANTITIES			
ITEM	EST'D.	AS-BUILT	SUPPLIER
8" WATER	3280'	3342'	GRIFFIN PIPE PRODUCTS
6" WATER	1136'	1106'	GRIFFIN PIPE PRODUCTS
8"x8" CROSS	1	1	WATER FRO TYLER PIPE
3/4" WHC	603'	730'	WATER FRO CALMEKKE-LEE
8"x6" TS&V	1	1	WATER FRO MUELLER CO.
8"x8" TEE	3	4	WATER FRO TYLER PIPE
8" VALVES	5	5	MUELLER CO.
6" VALVES	8	8	MUELLER CO.
FIRE HYDRANT	8	8	WATER FRO MUELLER CO.
8" SEWER	5100'	4932'	WATER FRO CALMEKKE-LEE
6" 1/2 HB	5'	5	TYLER PIPE
4" SHC	1695	2076	WATER FRO CALMEKKE-LEE
8" S (DIP)	195	200	GRIFFIN PIPE PRODUCTS
MANHOLES	36	35	CEMENT CEMENT CEMENT
8"x6" FH.TEE	8	7	WATER FRO TYLER PIPE
1" WHC	807	752	WATER FRO CALMEKKE-LEE
3" BLOW-OFF	1	1	WATER FRO CALMEKKE-LEE
AIR RELEASE V.	1	1	WATER FRO TYLER PIPE
OUTSIDE METER	1	1	WATER FRO MUELLER CO.
8"x6" REDUCER	5	5	WATER FRO TYLER PIPE
6"x6" TS&V	1	1	WATER FRO MUELLER CO.



- GENERAL NOTES**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.C.S. DATUM.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 4". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAINS.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
 - CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
STATE HIGHWAY ADMINISTRATION 531-5533
BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND GAS & ELECTRIC DISTRIBUTION CUSTOMER SERVICE 645-0113
ENGINEERING - "DAMAGE CONTROL" 334-5911
"MISS UTILITIES" 1-800-287-7777
CHESAPEAKE & POTOMAC (C & P) TELEPHONE COMPANY 725-3976
AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION 393-3533
COLONIAL PIPELINE COMPANY 795-1390
BUREAU OF UTILITIES HOWARD COUNTY 313-4900
 - TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE.
 - ALL WATER MAINS TO BE 8" D.I.P. CLASS 52 ONLY.
 - TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 - BLOCK ALL FITTINGS WITH CONCRETE.
 - BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET AS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING UNLESS OTHERWISE SHOWN.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
 - FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPE FITTINGS ONLY.
 - ALL SEWER MAINS SHALL BE C.S.P.P., A.C.S.P., 7.0 D.P., A.C.P., CLASS 1400 OR PVC UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 10' OF EXTERIOR MANHOLES WALL.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED "P.C." IN PLAN AND PROFILES SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G.5.5.2, WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISH GRADE, STANDARD DETAIL G.5.5.1.
 - HOUSE (S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CAN NOT BE SERVED.
 - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 OUTLETS FROM COMPACT FITTINGS 3" THROUGH 12" DIAMETER.
 - ALL SEWER HOUSE CONNECTIONS SHALL BE AT 2" SLOPES AND ARE 4" DIAMETER UNLESS OTHERWISE SHOWN.
 - ALL 3" BLOW-OFF SHALL BE PER STANDARD DETAIL G.5.5.13.
 - ALL CONSTRUCTION TO BE DONE AS PER THIS PLAN AND CURRENT HOWARD COUNTY DESIGN MANUAL VOL.1V.

CONTRACT NO.14-3031-D
THE GABLES AT LAWYERS HILL
 WATER AND SEWER MAIN EXTENSION
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 214 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN.

REVISED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

James M. Nelson 4/4/91
 SOIL CONSERVATION SERVICE DATE

F-91-30

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

APPROVED:

John R. Redington 4/3/91
 SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY MARYLAND

James J. ... 4/3/91
 DIRECTOR OF PUBLIC WORKS DATE

Robert M. ... 4-3-91
 CHIEF, BUREAU OF ENGINEERS DATE

Robert M. ... 4-1-91
 CHIEF, BUREAU OF UTILITIES DATE

Clayton ... 4/6/91
 CHIEF, LAND DEVELOPMENT DIVISION DATE

gpi
 Greenman-Pedersen, Inc.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100
 LAUREL MD 20780
 (301) 470-2772 WASHINGTON
 (301) 880-3055 BALTIMORE

DESIGNED	T.M.P.	REVISION	DATE
BY	NO	DESCRIPTION	DATE
RLC		REVISED BONNIE VIEW LANE & TIES	4/3/91
DJ		REVISED BONNIE VIEW LANE WATER & SEWER	5/2/91
CHECKED	PAH.		
DATE			
	3/20/91		

TITLE SHEET

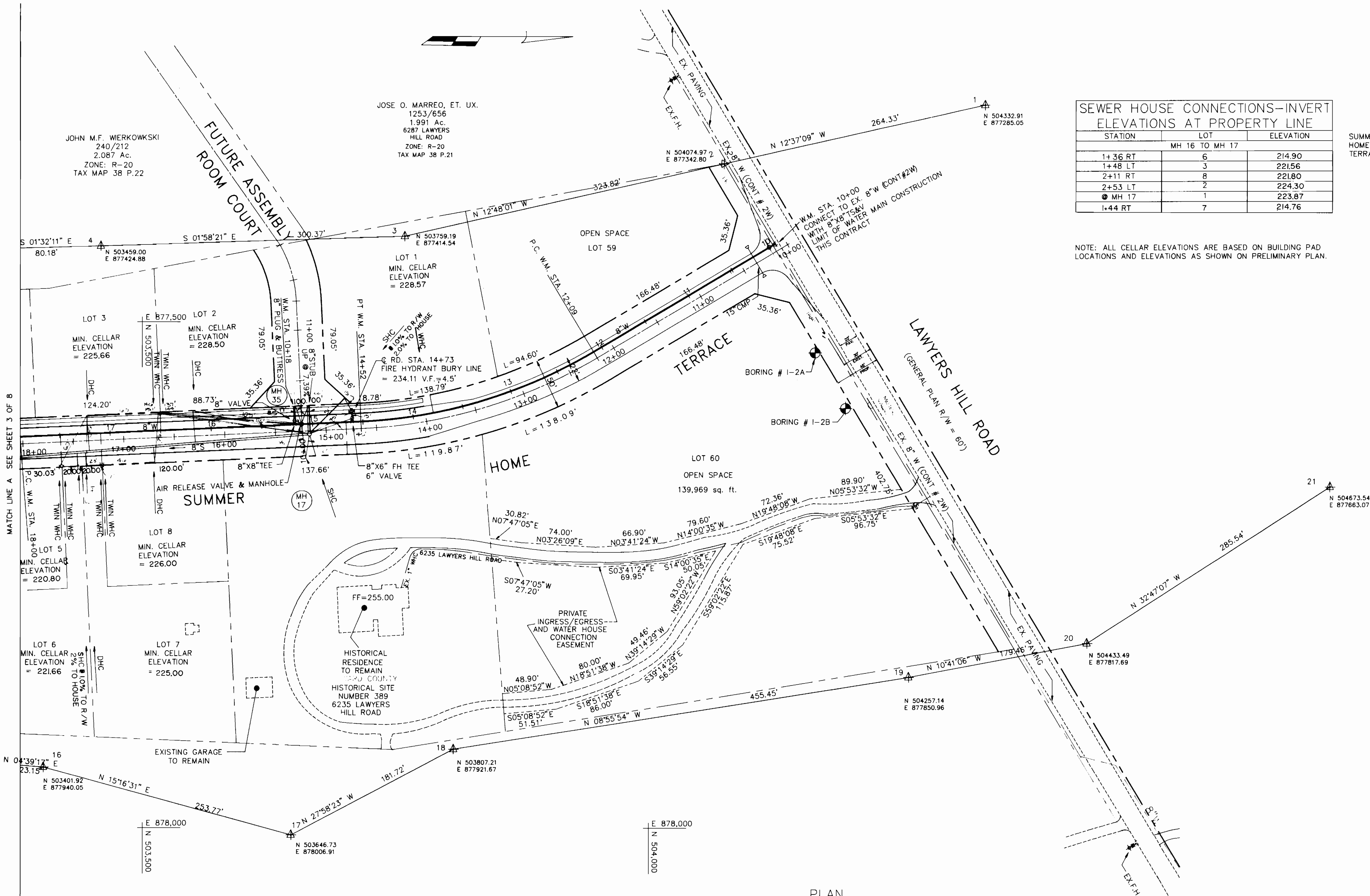
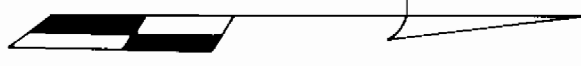
600' SCALE MAP NO. 32838 BLOCK NO.

THE GABLES AT LAWYERS HILL

CONTRACT NO.14-3031-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN

SHEET NO. 1 OF 8



SEWER HOUSE CONNECTIONS--INVERT ELEVATIONS AT PROPERTY LINE		
STATION	LOT	ELEVATION
1+36 RT	6	214.90
1+48 LT	3	221.56
2+11 RT	8	221.80
2+53 LT	2	224.30
MH 17	1	223.87
1+44 RT	7	214.76

MANHOLE TABLE				
NO.	R.D. STA.	DISTANCE	RIM ELEV.	SLOPE
17	15+17	3'LT	234.49	-0.40%
35	15+24	7'RT	234.30	-0.40%

BENCH MARKS

HOWARD COUNTY MONUMENT #2747001
ELEVATION = 213.31

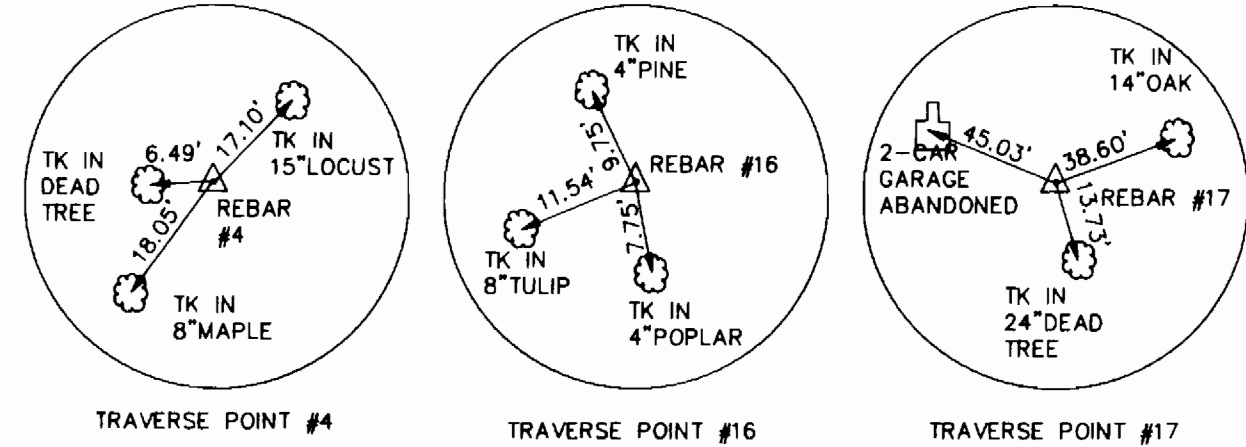
HOWARD COUNTY MONUMENT #2747002
ELEVATION = 192.33

NOTE: ALL CELLAR ELEVATIONS ARE BASED ON BUILDING PAD LOCATIONS AND ELEVATIONS AS SHOWN ON PRELIMINARY PLAN.

PLAN

SCALE: 1"=50'

BERTHA S. ROHLEDER
388/314
8.41 AC.
6219 LAWYERS HILL ROAD
ZONE: R-20
TAX MAP: P.



CONTRACT NO. 14-3031-D
THE GABLES AT LAWYERS HILL
WATER & SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS CHIEF, BUREAU OF ENGINEERING CHIEF, BUREAU OF UTILITIES CHIEF, LAND DEVELOPMENT DIVISION	 gpi Greenman-Pedersen, Inc. ENGINEERS/ARCHITECTS/PLANNERS 14504 GREENVIEW DRIVE, SUITE 100 LAUREL MD. 20708 (301) 470-2772 WASHINGTON (301) 880-3055 BALTIMORE	DESIGNED: T.M.P.	REVISIONS		PLAN WATER AND SEWER EXTENSION	" THE GABLES " AT LAWYERS HILL CONTRACT NO. 14-3031-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE	
		DRAWN: T.M.P.	BY: NO. 2	DESCRIPTION: REVISED MIN. CELLAR ELEV. & SEWER HOUSE CONNECTIONS			DATE: 1/18/91	1"=50'
		CHECKED: P.A.H.						SHEET NO.
		DATE: 3/20/91						2 OF 8

BENCH MARKS

B.M. "A" ELEV.=214.76
SINKER NAIL IN 12" TULIP 70' EAST
OF TRAV. #6

B.M. "C" ELEV.=194.32
SINKER NAIL IN 10" MAPLE 15' EAST
OF TRAV. #104

**SEWER HOUSE CONNECTIONS-INVERT
ELEVATIONS AT PROPERTY LINE**

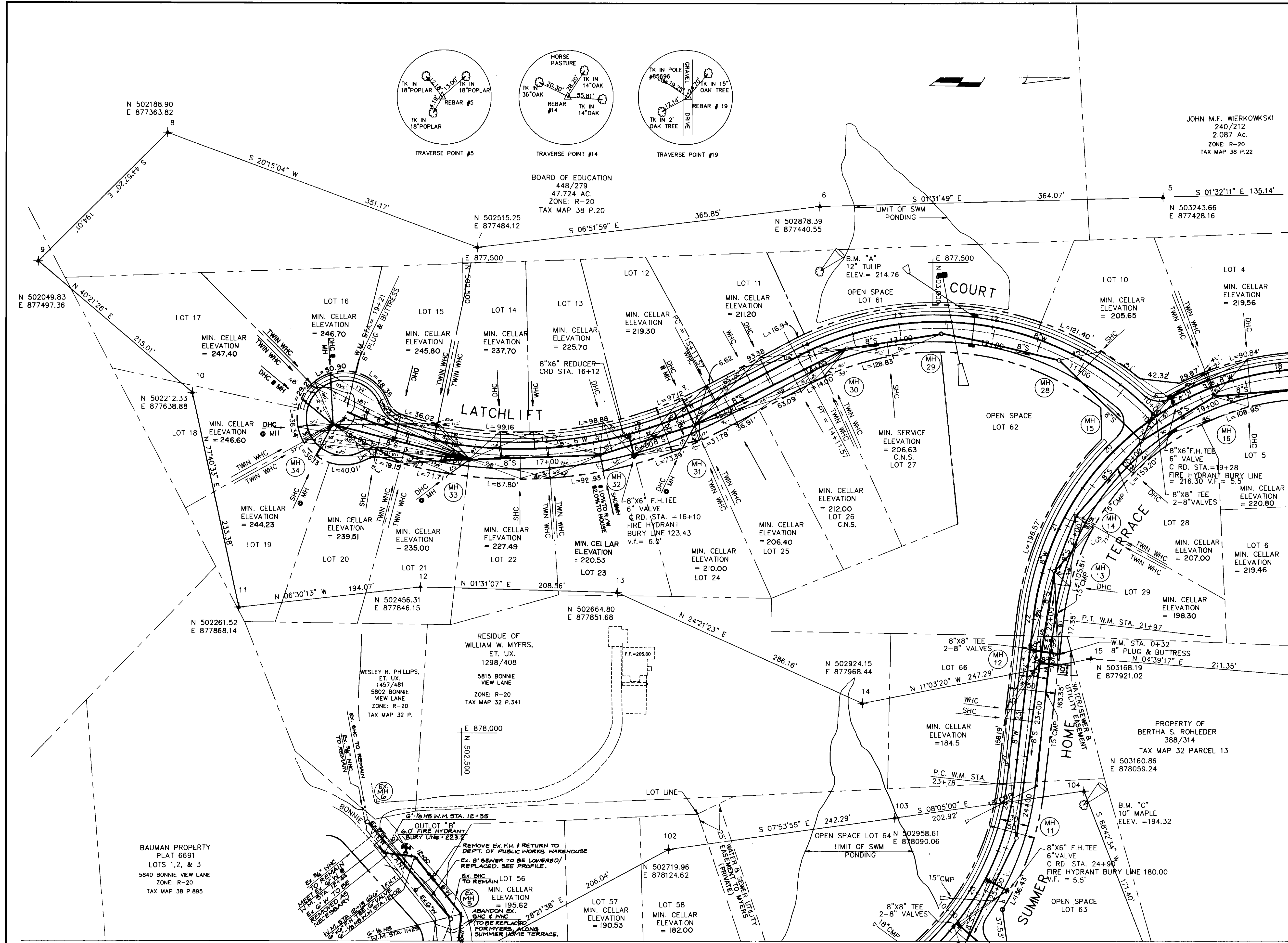
STATION	LOT	ELEVATION
0+35RT	MH. 16 TO MH. 17	216.70
0+40LT	4	215.36
MH. 12	MH.11 TO MH. 12	184.57
0+86RT	MH. 12 TO MH. 13	194.10
0+74 RT	MH. 14 TO MH.15	202.80
0+97 RT	MH. 15 TO MH. 28	201.75
0+65LT	MH. 29 TO MH. 30	202.33
0+86RT	11	207.10
0+63LT	26	207.91
1+39LT	25	203.15
MH. 31	12	215.10
MH. 31	MH. 31 TO MH. 32	205.90
0+92RT	24	221.50
MH. 32	MH. 32 TO MH.33	216.43
1+04LT	14	233.50
0+88RT	22	223.39
MH. 33	MH. 33 TO MH. 34	230.80
0+82RT	21	241.10
0+98LT	15	235.11
MH. 34	18	242.10
MH. 34	17	242.30
MH. 34	16	242.50
MH. 34	19	239.63

NOTE: MIN. CELLAR ELEVATIONS ARE BASED ON BUILDING PAD LOCATION AND ELEVATIONS AS SHOWN ON PRELIMINARY PLAN.

MANHOLE TABLE

NO.	C RD. STA.	DISTANCE	RIM. ELEVATION	SLOPE
16	18+86	3' LT.	219.34	-6.9%
15	19+79	5' LT.	212.66	-7.0%
14	20+86	3' LT.	205.32	-7.0%
13	21+50	5' LT.	200.80	-7.0%
12	22+50	5' LT.	193.80	-7.0%
11	24+36	7' LT.	181.86	-4.3%
28	11+25	5' LT.	210.66	-2.4%
29	12+55	5' LT.	209.52	0.30%
30	13+60	5' LT.	216.1	3.6%
31	15+43	7' LT.	221.37	10.0%
32	16+45	7' LT.	230.49	7.7%
33	17+83	7' LT.	243.14	4.0%
34	COURT		250.72	
35			194.00	
36			212.10	

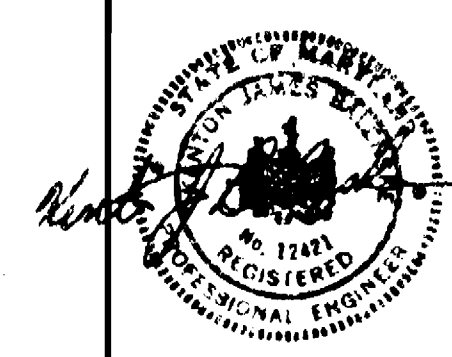
CONTRACT NO. 14-3031-D
THE GABLES AT LAWYERS HILL
WATER & SEWER MAIN EXTENSION
HOWARD COUNTY, MARYLAND



MATCH LINE B SEE SHEET 4 OF 8

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND
 Director of Public Works: *James P. ...* 4-18-91
 Chief, Bureau of Engineering: *Robert ...* 4-8-91
 Chief, Bureau of Design: *Robert ...* 4-1-91
 Chief, Land Development Division: *...* 4/8/91

gpi
Greenman-Pedersen, Inc.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100
 LAUREL MD. 20708
 (301) 470-2772 WASHINGTON
 (301) 880-3055 BALTIMORE



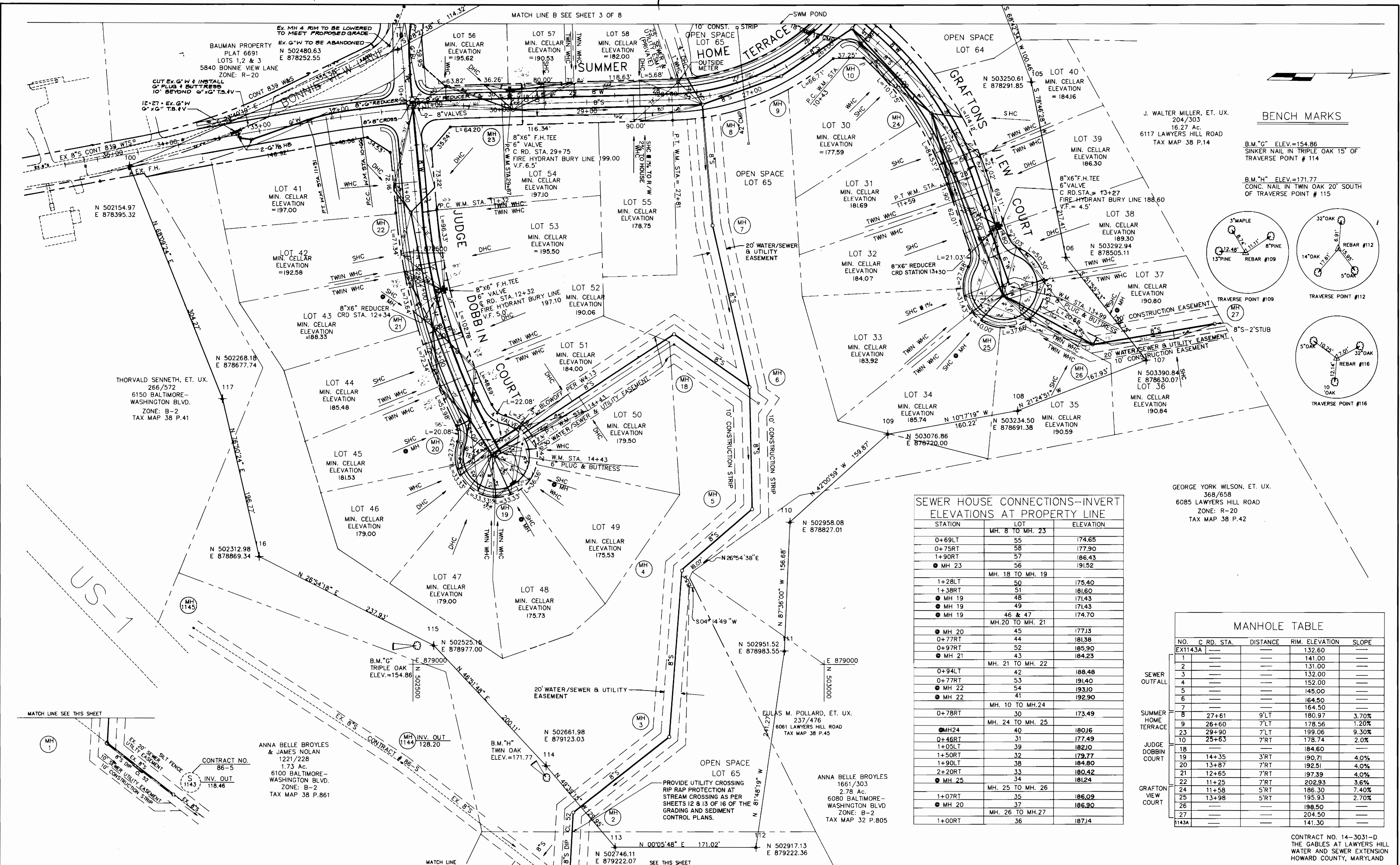
DESIGNED:	T.M.P.	REVISIONS	DATE
DRAWN:	T.M.P.	BY NO. DESCRIPTION	DATE
CHECKED:	P.A.H.	RLC 2 REVISED MIN. CELLAR ELEV., LOT LINES AND HOUSE CONNECTIONS	11/18/91
DATE:		DJ REVISED BONNIE VIEW LANE WES	4/1/92
		MOVED BONNIE VIEW LANE WATER TO NORTH SIDE	5/1/92

PLAN
 WATER AND SEWER EXTENSION

"THE GABLES" AT LAWYERS HILL
 CONTRACT NO. 14-3031-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 1"=50'
 SHEET NO.
 3 OF 8

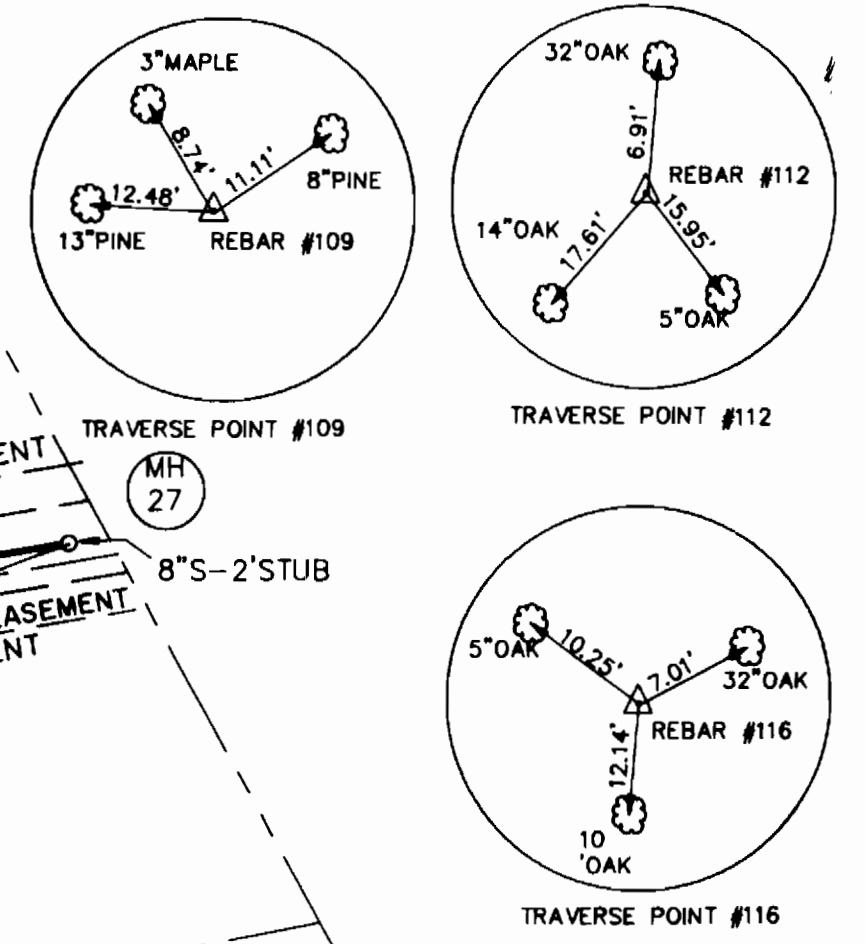
AS-BUILT 8-10-93



BENCH MARKS

B.M. "G" ELEV.=154.86
SINKER NAIL IN TRIPLE OAK 15' OF
TRAVERSE POINT # 114

B.M. "H" ELEV.=171.77
CONC. NAIL IN TWIN OAK 20' SOUTH
OF TRAVERSE POINT # 115



SEWER HOUSE CONNECTIONS--INVERT ELEVATIONS AT PROPERTY LINE

STATION	LOT	ELEVATION
0+69LT	55	174.65
0+75RT	58	177.90
1+90RT	57	186.43
● MH 23	56	191.52
MH. 18 TO MH. 19		
1+28LT	50	175.40
1+38RT	51	181.60
● MH 19	48	171.43
● MH 19	49	171.43
● MH 19	46 & 47	174.70
MH. 20 TO MH. 21		
● MH 20	45	177.13
0+77RT	44	181.38
0+97RT	52	185.90
● MH 21	43	184.23
MH. 21 TO MH. 22		
0+94LT	42	188.48
0+77RT	53	191.40
● MH 22	54	193.10
● MH 22	41	192.90
MH. 10 TO MH. 24		
0+78RT	30	173.49
MH. 24 TO MH. 25		
● MH 24	40	180.16
0+46RT	31	177.49
1+05LT	39	182.10
1+50RT	32	179.77
1+90LT	38	184.80
2+20RT	33	180.42
● MH 25	34	181.24
MH. 25 TO MH. 26		
1+07RT	35	186.09
● MH 20	37	186.90
MH. 26 TO MH. 27		
1+00RT	36	187.14

MANHOLE TABLE

NO.	C RD. STA.	DISTANCE	RIM. ELEVATION	SLOPE
EX1143A				
1			132.60	
2			141.00	
3			131.00	
4			132.00	
5			152.00	
6			145.00	
7			164.50	
8			164.50	
9	27+61	9'LT	180.97	3.70%
10	26+60	7'LT	178.56	1.20%
11	29+90	7'LT	199.06	9.30%
12	25+63	7'RT	178.74	2.0%
13			184.60	
14	14+35	3'RT	190.71	4.0%
15	13+87	7'RT	192.51	4.0%
16	12+65	7'RT	197.39	4.0%
17	11+25	7'RT	202.93	3.6%
18	11+58	5'RT	186.30	7.40%
19	13+98	5'RT	195.93	2.70%
20			198.50	
21			204.50	
22			141.30	
1143A				

CONTRACT NO. 14-3031-D
THE GABLES AT LAWYERS HILL
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND

James P. Lewis
DIRECTOR OF PUBLIC WORKS
DATE 4-8-91

Robert J. ...
CHIEF, BUREAU OF ENGINEERING
DATE 4-1-91

...
CHIEF, BUREAU OF UTILITIES
DATE 4-1-91

...
CHIEF, LAND DEVELOPMENT DIVISION
DATE 4-1-91

gpi
Greenman-Pedersen, Inc.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100
LAUREL MD, 20708
(301) 470-2772 WASHINGTON
(301) 880-3055 BALTIMORE



DESIGNED: T.M.P.

DRAWN: T.M.P.

CHECKED: P.A.H.

DATE: 3/20/91

BY	NO.	DESCRIPTION	DATE
RLC	2	REVISED MIN. CELLAR ELEV. & LOT LINES	11/18/91
DJ		REVISED BONNIE VIEW LANE WAS	11/18/91
		MOVED BONNIE VIEW LANE WATER TO NORTHSIDE	5/21/92

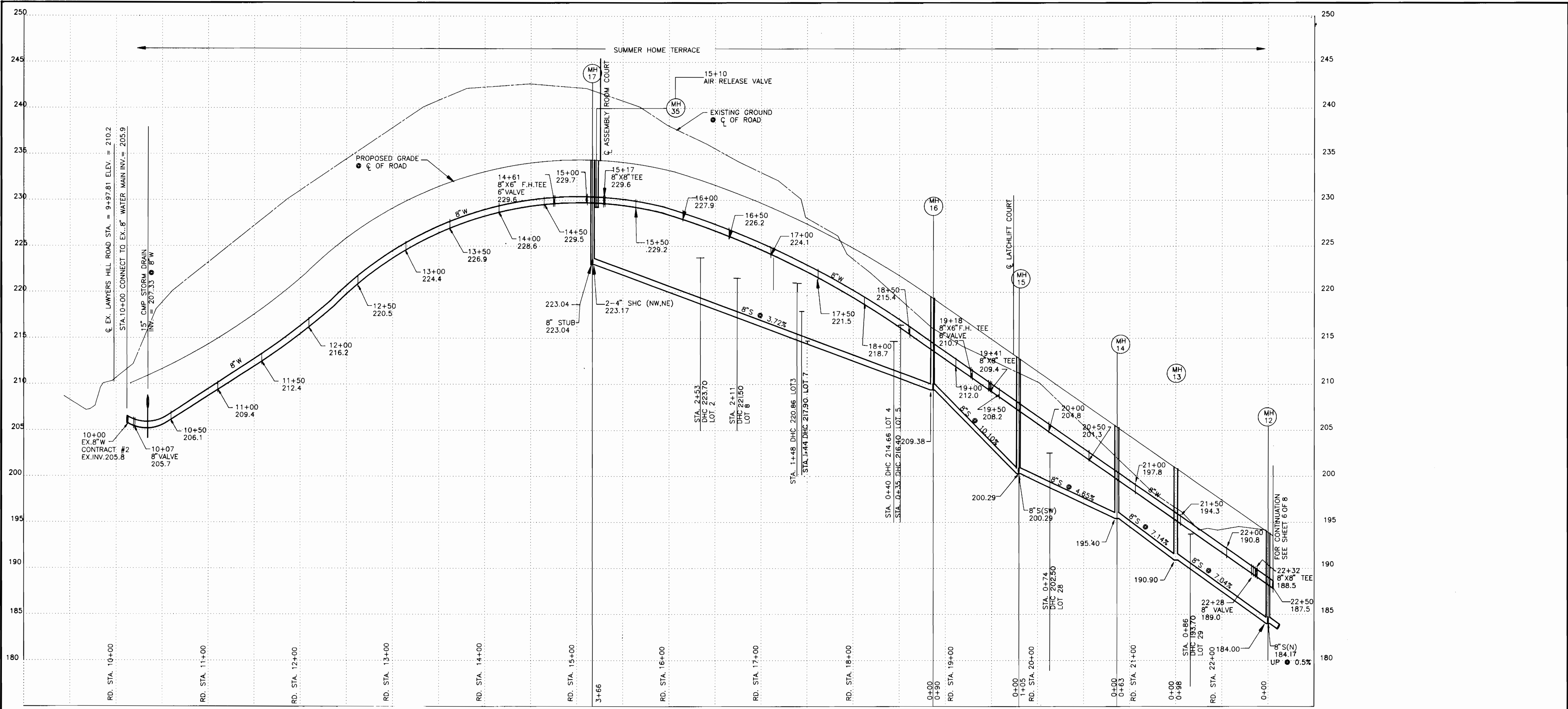
PLAN

WATER AND SEWER EXTENSION

SCALE 1"=50'

SHEET NO. 4 OF 8

AS-BUILT

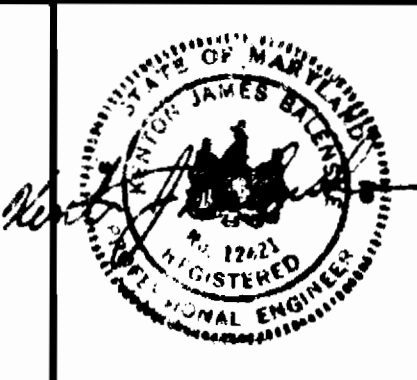


PROFILE
SCALE HOR: 1" = 50'
VER: 1" = 5'

CONTRACT NO. 14-3031-D
THE GABLES AT LAWYERS HILL
WATER AND SEWER MAIN EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND
James P. Selig
 DIRECTOR OF PUBLIC WORKS
 DATE: 4-8-91
Robert W. Switzer
 CHIEF, BUREAU OF UTILITIES
 DATE: 4-19-91
John A. ...
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 4/19

gpi
Greenman-Pedersen, Inc.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100
 LAUREL MD, 20708
 (301) 470-2772 WASHINGTON
 (301) 880-3055 BALTIMORE



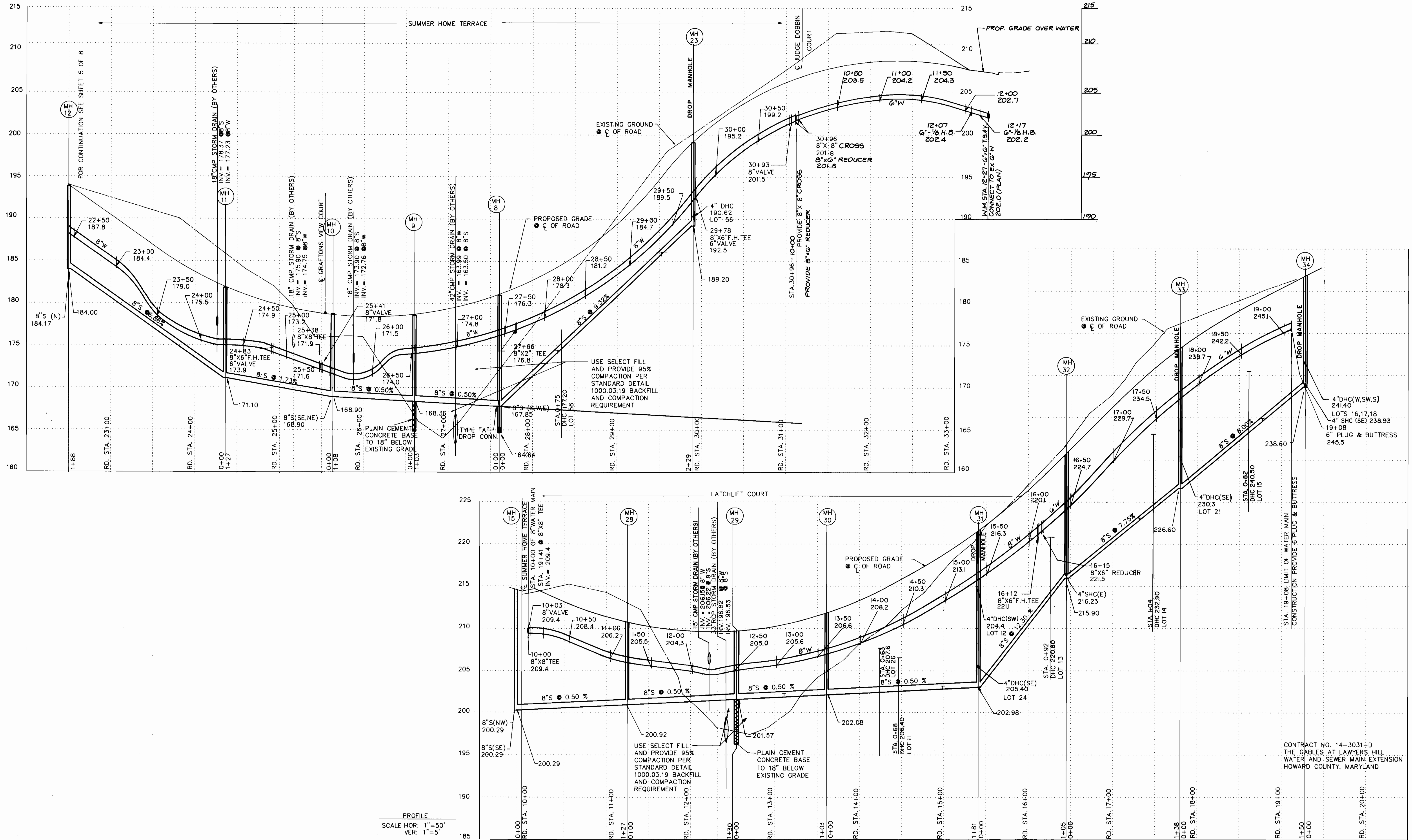
DESIGNED:	T.M.P.
DRAWN:	T.M.P.
CHECKED:	P.A.H.
DATE:	3/20/91

REVISIONS			
NO.	DESCRIPTION	DATE	
2	REVISED SEWER HOUSE CONNECTIONS	11/18/91	

PROFILE
 WATER AND SEWER EXTENSION

" THE GABLES " AT LAWYERS HILL
 CONTRACT NO. 14-3031-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 AS SHOWN
 SHEET NO.
 5 OF 8

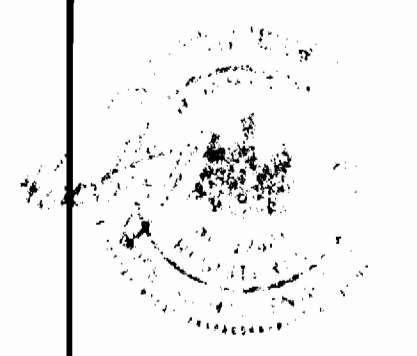


PROFILE
 SCALE HOR: 1"=50'
 VER: 1"=5'

CONTRACT NO. 14-3031-D
 THE GABLES AT LAWYERS HILL
 WATER AND SEWER MAIN EXTENSION
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* 4-10-91
 Chief, Bureau of Engineering: *[Signature]* 4-2-91
 Chief, Bureau of Utilities: *[Signature]* 4-1-91
 Chief, Land Development Division: *[Signature]* 4-14-91

gpi
 Greenman-Pedersen, Inc.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100
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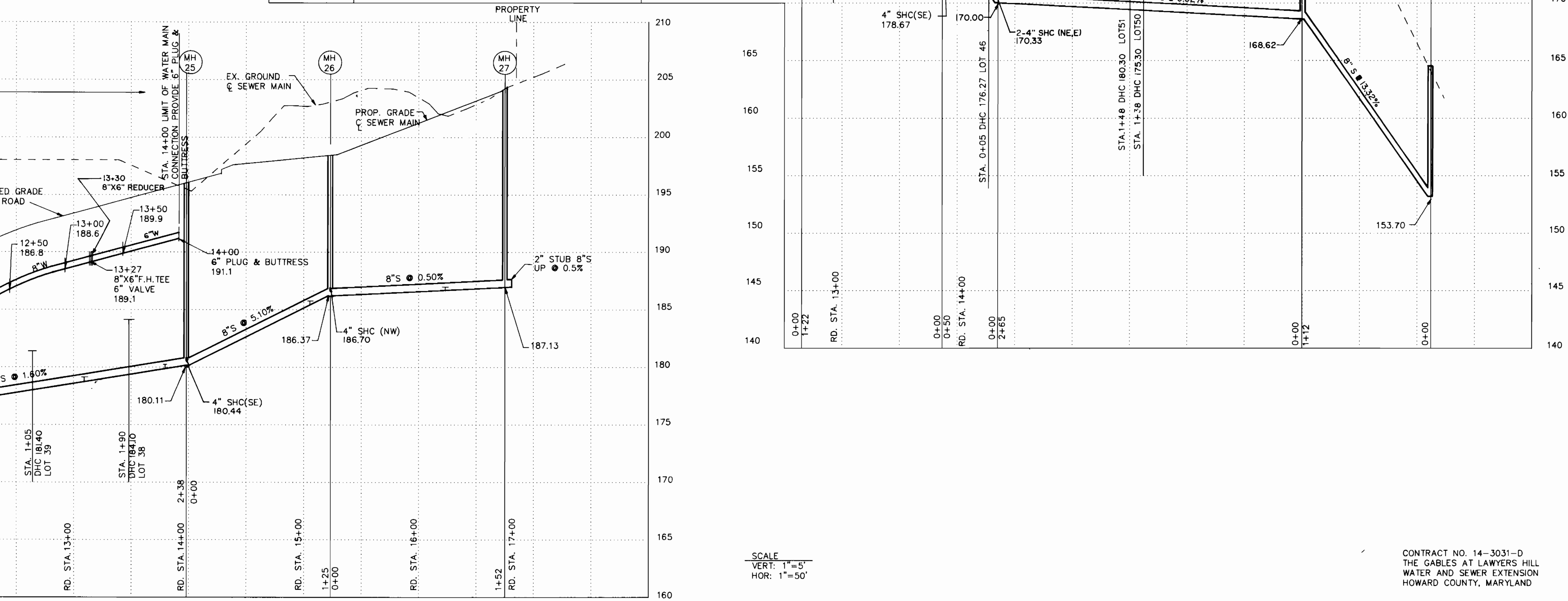
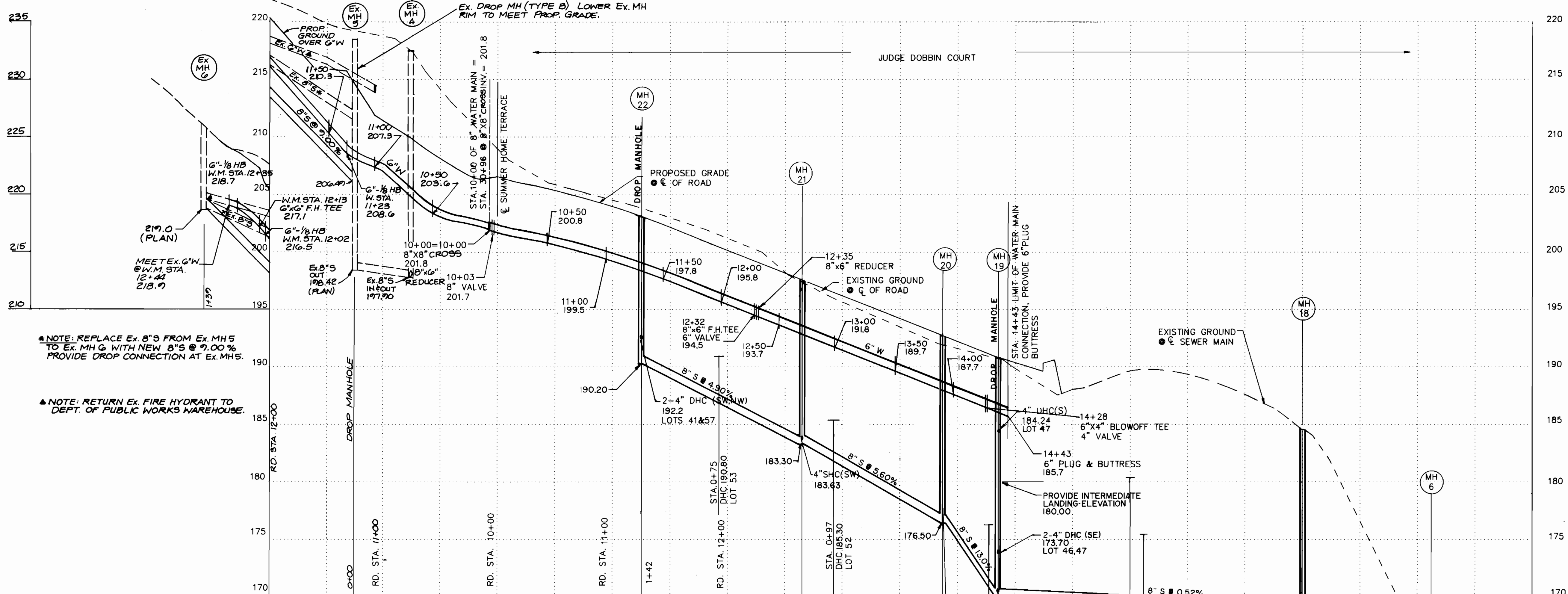


DESIGNED:	T.M.P.	REVISIONS	
DRAWN:	T.M.P.	BY	NO.
CHECKED:	P.A.H.	RLC	2
DATE:	3/20/91	DESCRIPTION	
			REVISED STREET GRADE, WATER LINE & SHC 11/19/91
			REVISED BONNIE VIEW LANE WFS 4/15/93

PROFILE
 WATER AND SEWER EXTENSION

" THE GABLES " AT LAWYERS HILL
 CONTRACT NO. 14-3031-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 AS SHOWN
 SHEET NO.
 6 OF 8



SCALE
VERT: 1"=5'
HOR: 1"=50'

CONTRACT NO. 14-3031-D
THE GABLES AT LAWYERS HILL
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND
James P. Kelly
 DIRECTOR OF PUBLIC WORKS
 DATE 4-2-91
Robert J. Reilly
 CHIEF, BUREAU OF ENGINEERING
 DATE 4-1-91
Robert J. Reilly
 CHIEF, BUREAU OF UTILITIES
 DATE 4/1/91
 CHIEF, LAND DEVELOPMENT DIVISION

gpi
Greenman-Pedersen, Inc.
 ENGINEERS/ARCHITECTS/PLANNERS
 14504 GREENVIEW DRIVE, SUITE 100
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DESIGNED:	T.M.P.	REVISIONS	DATE
DRAWN:	T.M.P.	BY NO. DESCRIPTION	DATE
CHECKED:	P.A.H.	2 REVISED STREET GRADE, WATER & SEWER LINES AND HOUSE CONNECTIONS	11/18/91
DATE:		RLC REVISED BONNIE VIEW LANE W/S	11/18/91
		DJ REVISED BONNIE VIEW LANE W/S	1/21/92
	3/20/91		

PROFILE
 WATER AND SEWER EXTENSION

" THE GABLES " AT LAWYERS HILL
 CONTRACT NO. 14-3031-D
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET NO. 7 OF 8

RIP-RAP NOTES

1. RIP-RAP SHALL BE PLACED AT ALL DISTURBED AREAS WITHIN THE FULL WIDTH OF THE RIGHT-OF-WAY AT LOCATIONS INDICATED ON THE DRAWING.
2. RIP-RAP FOR PLACEMENT ALONG THE STREAM BANK AT THE SEWER MAIN SHALL CONFORM TO SHA SPECIFICATIONS FOR CLASS II STONE AND THE THICKNESS OF THE RIP-RAP LAYER SHALL BE 2.0' DEEP.
3. EROSION CONTROL FABRIC SHALL BE POLY FILTER-X AS MANUFACTURED BY CARTHAGE MILLS, INC. OR PERMEALINER M-1195 AS MANUFACTURED BY STAFF INDUSTRIES, INC. OR EQUAL.

STABILIZATION NOTES

- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
1. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 2. 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

PERMANENT STABILIZATION AND SEEDING NOTES

1. SEEDBED SHALL BE PREPARED TO A MINIMUM DEPTH OF 3 INCHES WHEN THE AREA TO BE SEEDED HAS BEEN RECENTLY LOOSENEED TO THE EXTENT THAT AN ADEQUATE SEEDBED EXISTS, NO ADDITIONAL TREATMENT IS REQUIRED.
2. APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE.
3. APPLY FERTILIZER AT THE MINIMUM RATE OF 500 POUNDS OF 10-10-10 PER ACRE.
4. SEED ALL DISTURBED AREAS WITH A MIXTURE OF CERTIFIED KENTUCKY 31 FESCUE AT 50 POUNDS PER ACRE AND INOCULATED KOREAN LESPEDEZA AT 15 POUNDS PER ACRE.
5. MULCH SHALL BE UNWEATHERED SMALL GRAIN STRAW AND SHALL BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE.
6. ANCHOR MULCH WITH A CUTBACK OR EMULSIFIED ASPHALT AT THE RATE OF 5 GALLONS PER 1,000 SQ. FT.

OUTFALL SEWER MAIN CONSTRUCTION SEQUENCE

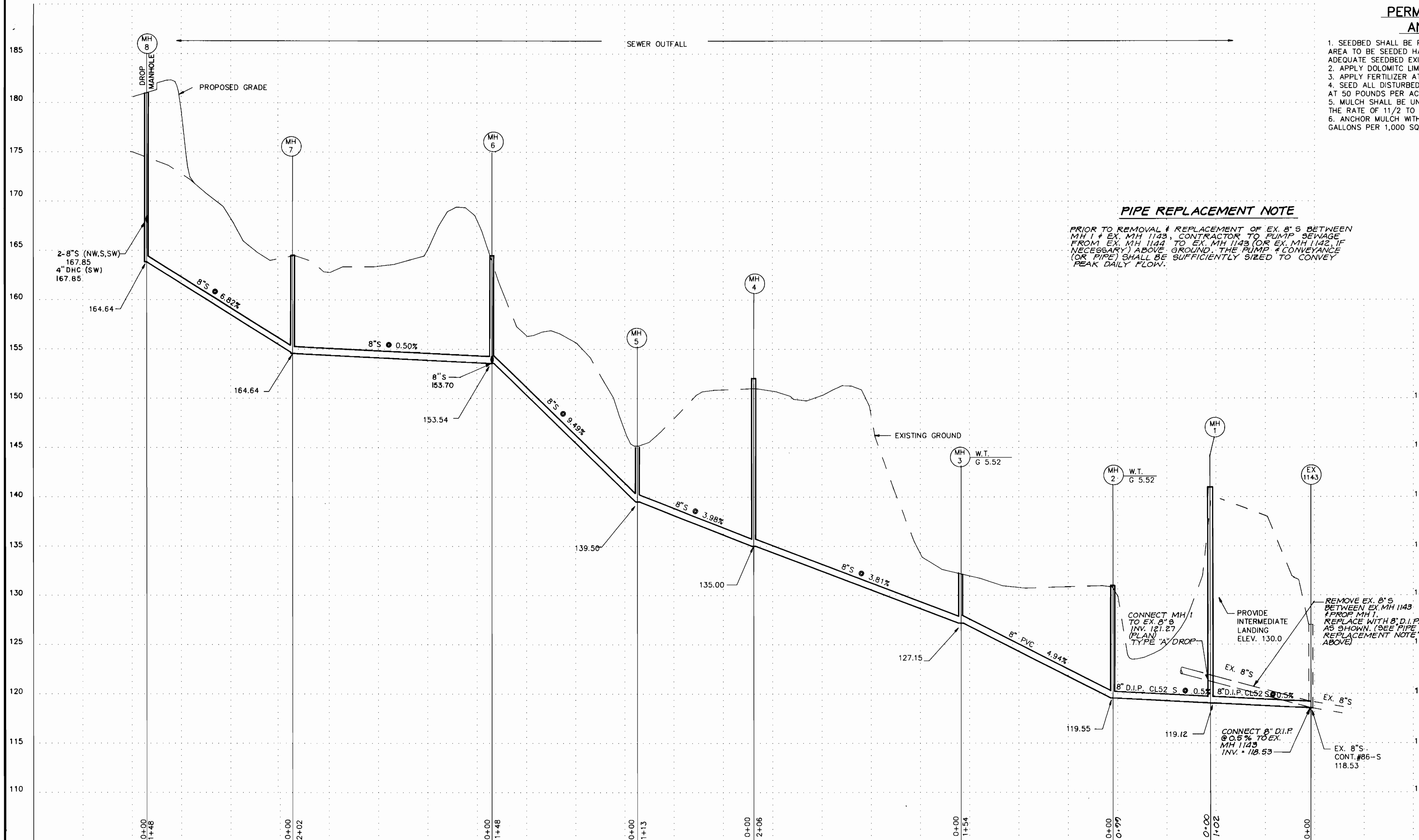
1. IMPLEMENT CONDITIONS & REQUIREMENTS OF THE TEMPORARY WATERWAY CONSTRUCTION PERMIT.
2. INSTALL SEDIMENT & EROSION CONTROL DEVICES - SEE SHEET 4 OF 8 AND SITE SEDIMENT CONTROL PLAN.
3. CLEAR & GRUB AS REQUIRED - WITHIN THE LIMITS OF THE SEWER MAIN RIGHT-OF-WAY ONLY.
4. EXCAVATE TRENCH - PLACE EXCAVATED MATERIAL ON THE UPGRADE SIDE OF SEWER MAIN TRENCH.
5. INSTALL SEWER MAIN, BACKFILL & COMPACT TRENCH IN ACCORDANCE WITH THE SPECIFICATIONS.
6. STABILIZE AND SEED ALL DISTURBED AREAS IN ACCORDANCE WITH THE NOTES SHOWN ON THIS SHEET.
7. PLACE RIP-RAP AT THE STREAM & SWALE CROSSINGS AS INDICATED ON THE PLAN & IN ACCORDANCE WITH THE DETAIL.
8. FOLLOWING SUCCESSFUL STABILIZATION AND UPON APPROVAL OF THE SOIL CONSERVATION DISTRICT INSPECTOR, REMOVE ALL SEDIMENT & EROSION CONTROL DEVICES.

PIPE REPLACEMENT NOTE

PRIOR TO REMOVAL & REPLACEMENT OF EX. 8" S BETWEEN MH 1 & EX. MH 1143, CONTRACTOR TO PUMP SEWAGE FROM EX. MH 1144 TO EX. MH 1143 (OR EX. MH 1142, IF NECESSARY) ABOVE GROUND. THE PUMP & CONVEYANCE (OR PIPE) SHALL BE SUFFICIENTLY SIZED TO CONVEY PEAK DAILY FLOW.

EROSION AND SEDIMENT CONTROL NOTES

1. SEDIMENT CONTROL OPERATIONS ARE TO BE DONE IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THE STANDARDS AND SPECIFICATIONS FOR SEDIMENT CONTROL IN DEVELOPING AREAS.
2. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON THE UPGRADE SIDE OF CONSTRUCTION AREA.
3. IMMEDIATELY FOLLOWING BACKFILL OF THE SEWER MAIN TRENCH, ALL DISTURBED AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION & SEEDING NOTES SHOWN ON THIS SHEET.
4. THROUGHOUT THE PROJECT, THE CONTRACTOR SHALL REGULARLY INSPECT ALL SEDIMENT CONTROL DEVICES AND PROVIDE ALL NECESSARY MAINTENANCE TO INSURE THAT ALL DEVICES ARE IN OPERATIVE CONDITION.
5. ALL SEDIMENT CONTROL FACILITIES SHALL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
6. SEE OUTFALL SEWER MAIN CONSTRUCTION SEQUENCE THIS SHEET.
7. SEE SHEET 4 OF 8 FOR SEDIMENT CONTROL DEVICES AT THE OUTFALL SEWER MAIN.



PROFILE
SCALE HOR: 1"=50'
VERT: 1"=5'

CONTRACT NO. 14-3031-D
THE GABLES AT LAWYERS HILL
WATER AND SEWER MAIN EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS, HOWARD COUNTY, MARYLAND

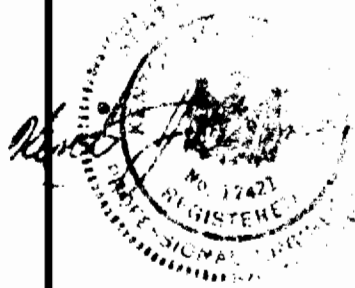
James P. ...
DIRECTOR OF PUBLIC WORKS
DATE: 4-1-91

Robert ...
CHIEF, BUREAU OF ENGINEERING
DATE: 4-1-91

...
CHIEF, BUREAU OF UTILITIES
DATE: 4-1-91

...
CHIEF, LAND DEVELOPMENT DIVISION
DATE: 4-1-91

gpi
Greenman-Pedersen, Inc.
ENGINEERS/ARCHITECTS/PLANNERS
14504 GREENVIEW DRIVE, SUITE 100
LAUREL MD, 20708
(301) 470-2772 WASHINGTON
(301) 880-3055 BALTIMORE



DESIGNED:	T.M.P.	REVISIONS		DATE:
DRAWN:	T.M.P.	BY	NO.	DESCRIPTION
CHECKED:	P.A.H.		2	LABELED DROP MANHOLE
DATE:	3/20/91			

PROFILE

WATER AND SEWER EXTENSION

" THE GABLES " AT LAWYERS HILL

CONTRACT NO. 14-3031-D
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE
AS SHOWN

SHEET NO.

8 OF 8